

Abstract

This invention relates to specific, improved spun-bonded nonwoven fabrics comprised of continuous multi-component longitudinally splittable fibers. The resulting nonwoven fabrics exhibit enhanced flexibility, drape, softness, thickness, moisture absorption capacity, moisture vapor transmission rate, and cleanliness in comparison with other nonwovens of the same fiber construction. These improved aesthetic and performance characteristics permit expansion of high-strength nonwoven fabric materials into other markets and industries currently dominated by woven and knit fabrics that exhibit such properties themselves, but at high cost and requiring greater manufacturing complexity. Such enhanced fabrics are subjected to certain air impingement procedures, for instance through directing low-pressure gaseous fluids at high velocity to the surface of the targeted nonwoven fabric. Also encompassed within this invention is the method of treating such a specific nonwoven fabric with this air impingement procedure.

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